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10/576,588	04/21/2006	Kunio Gobara	MAT-8844US	7276
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/576,588	GOBARA ET AL.			
Office Action Summary	Examiner	Art Unit			
	JEFFREY NICKERSON	2442			
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tirr will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. sely filed the mailing date of this communication. (35 U.S.C. § 133).			
Status					
 Responsive to communication(s) filed on <u>04 Octoors</u> This action is FINAL. 2b) This Since this application is in condition for alloward closed in accordance with the practice under Exercise 	action is non-final. nce except for formal matters, pro				
Disposition of Claims					
4) ☐ Claim(s) 89-126 and 128-137 is/are pending in 4a) Of the above claim(s) 94-112 and 117-125 is 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 89-93,113-116,126 and 128-137 is/are 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	is/are withdrawn from considerati	on.			
Application Papers					
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the off Replacement drawing sheet(s) including the correction of the off the oath or declaration is objected to by the Examiner	epted or b) objected to by the Edrawing(s) be held in abeyance. See on is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 					
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 24 August 2010.	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ate			

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DETAILED ACTION

1. This communication is in regard to Application No. 10/576,588 filed nationally on 21 April 2006 and internationally on 29 October 2004. Applicant's response presented on 04 October 2010, which amends claims 89, 91-93, 113-116, 126, and 128, cancels claim 127, amends the specification, and presents arguments, is hereby acknowledged. Claims 89-126 and 128-137 are currently pending; claims 94-112 and 117-125 remain withdrawn from consideration; claims 89-93, 113-116, 126, and 128-137 have been examined.

Specification

2. Applicant's specification amendments and/or arguments, filed in the response dated 04 October 2010, regarding the specification objections have been fully considered and are at least persuasive-in-part. All outstanding specification objections are hereby withdrawn.

Claim Objections

3. Applicant's claim amendments and/or arguments, filed in the response dated 04 October 2010, regarding the claim objections have been fully considered and are at least persuasive-in-part. All outstanding claim objections are hereby withdrawn.

35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Response to Arguments

5. Applicant's claim amendments and arguments, filed in the response dated 04 October 2010, regarding the rejections under 35 USC 112 second paragraph have been fully considered and are at least persuasive-in-part. All outstanding rejections under 35 USC 112 second paragraph are hereby withdrawn.

35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Response to Arguments

7. Applicant's claim amendments and arguments, filed in the response dated 04 October 2010, regarding the rejections under 35 USC 101 have been fully considered and are at least persuasive-in-part. All outstanding rejections under 35 USC 101 are hereby withdrawn.

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Double Patenting

8. The following is the basis for the Double Patenting rejections found within this Office Action:

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Response to Arguments

9. Applicant's statements, filed in the response dated 04 October 2010, regarding the provisional Double Patenting rejections, are hereby acknowledged. The provisional rejections are recited again below.

Claim Rejections

10. Claims 113-116, 126, 128, and 132-137 are <u>provisionally</u> rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3-7 of copending Application No. 11/510487 (herein Copending) in view of Takeda et al (US 2004/0139228 A1).

Regarding claim 113, Copending teaches a server for establishing communication of a first information processor via a first communication control unit, comprising:

a reference port detector which receives the reference port detection packet from an information processor for detecting the position of the reference port in accordance with the reference port detection packet (Copending: claim 7, stanza 5);

a reference port transmitter for transmitting reference port information showing the position of the reference port detected by the reference port detector to the first information processor (Copending: claim 7, stanza 6);

a bubble packet transmitting port detector which receives the port detection packet transmitted from the first information processor for detecting the position of the bubble packet transmitting port in accordance with the port detection packet (Copending: claim 3, stanza 1); and

a bubble packet transmitting port information transmitter for transmitting the bubble packet transmitting port information (Copending: claim 6, stanza 1);

Copending does not teach wherein the server is for controlling communications between a first information processor with a first communication control unit and a second information processor with a second communication control unit;

wherein the reference port packet is transmitted from the second information processor via the second communication control unit, the reference port being a port in the second communication control unit that is a reference for transmission of a bubble

packet transmitted by the first information processor leaving transmission record in the communication control unit;

wherein the bubble transmitting port is a port in the first communication control unit which is used in transmission of a bubble packet from the first information processor to the second communication control unit;

wherein the bubble packet transmitting port information shows the position of the bubble packet transmitting port detected by the bubble packet transmitting port to the second information processor; or

wherein, responsive to receiving the bubble packet transmitting port information, the second information processor transmits a reply packet to the bubble packet transmitting port showing the bubble packet transmitting port information, the reply packet being transmitted to the bubble packet transmitting port by using N different ports (N being an integer of 2 or more)

Takeda, in a similar field of endeavor, teaches wherein the server is for controlling communications between a first information processor with a first communication control unit and a second information processor with a second communication control unit (Takeda: Figures 16A-16D);

wherein the reference port packet is transmitted from the second information processor via the second communication control unit, the reference port being a port in the second communication control unit that is a reference for transmission of a bubble packet transmitted by the first information processor leaving transmission record in the communication control unit (Takeda: Figure 16A, 1607B; [0192]-[0193] STUN server

receives packet from client 630 and identifies NAT type and port/address pair of client 630, which is later used as destination of BOPs from server 629);

wherein the bubble transmitting port is a port in the first communication control unit which is used in transmission of a bubble packet from the first information processor to the second communication control unit (Takeda: Figure 16B, items 1610-1616; [0194] for BOPs);

wherein the bubble packet transmitting port information shows the position of the bubble packet transmitting port detected by the bubble packet transmitting port to the second information processor (Takeda: Figure 16A, 1610; [0192]-[0193] client 630 receives NAT address/port pair mapping and NAT type of the server 629 via STUN server); and

wherein, responsive to receiving the bubble packet transmitting port information, the second information processor transmits a reply packet to the bubble packet transmitting port showing the bubble packet transmitting port information, the reply packet being transmitted to the bubble packet transmitting port by using N different ports (N being an integer of 2 or more) (Takeda: Figure 16C; [0200]-[0202] provides for use of ports 49154 (NAT 1604) and 50014 (NAT 1604)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Takeda for using the NAT breakouts to setup a connection with a second communication device. The teachings of Takeda, when implemented in the Copending system, will allow one of ordinary skill in the art to set up a P2P connection where the devices are behind symmetric NATs. One of

ordinary skill in the art would be motivated to utilize the teachings of Takeda in the Copending system in order to allow peers behind symmetric NATs to set up direct connections for streaming data.

Regarding claim 114, the Copending/Takeda system teaches wherein the bubble packet transmitting port detector detects the position of the bubble packet transmitting port using a port number differential of the first communication control unit (Copending: claim 4, stanza 1).

Regarding claim 115, the Copending/Takeda system teaches wherein the server further comprises a port number differential detector which receives a port number differential detection packet transmitted from the first information processor for detecting the port number differential of the first communication control unit in accordance with the port number differential detection packet in order to detect the port number differential of the first communication control unit (Copending: claim 5, stanza 1-2); and

wherein the bubble packet transmitting port detects the position of the bubble packet transmitting port by using the port number differential detected by the port number differential detector (Copending: claim 5, stanza 3).

Regarding claim 116, this claim contains limitations found within that of claim 115, and the same rationale of rejection is used, where applicable.

Regarding claim 126, this claim contains limitations found within that of claim 113, and the same rationale of rejection is used, where applicable.

Regarding claim 128, the Copending/Takeda system teaches further comprising:

a detecting port detecting step for detecting the port position of the

communication control unit through which the port detection packet has passed in

accordance with the port detection packet (Copending: claim 7, stanza 5); and

a detecting port information transmitting step for transmitting detecting port information showing the port position detected in the detecting port detecting step (Copending: claim 7, stanza 6).

Regarding claim 132, the Copending/Takeda system teaches wherein the N ports are newly assigned in the second communication control unit when transmitting the reply packet (Takeda: Figures 16B-16C; [0194]-[0202] provides the NAT 1604 has not prior sent a packet to port 50014 from port 49154).

Regarding claim 133, the Copending/Takeda system teaches wherein the bubble packet transmitter transmits the bubble packet to a port which is assigned based on the reference port and a specified number L (L being an integer) (Takeda: Figure 16B; [0194]-[0196] provides it users reference plus the delta for target ports).

Regarding claim 134, the Copending/Takeda system teaches wherein the number N is greater than or equal to the number L (Takeda: [0192] provides the delta is 2; [0200]-[0202] for using 2 ports, source and destination).

Regarding claim 135, this server method claim contains limitations found within that of claim 129, and the same rationale of rejection is used, where applicable.

Regarding claim 136, this server method claim contains limitations found within that of claim 130, and the same rationale of rejection is used, where applicable.

Regarding claim 137, this server method claim contains limitations found within that of claim 131, and the same rationale of rejection is used, where applicable.

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35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Response to Arguments

12. Applicant's claim amendments and arguments, filed in the response dated 04 October 2010, regarding the rejections under 35 USC 102/103 have been fully considered but they are not persuasive.

Independent claims 89, 113, and 126

Applicant argues the teachings of Takeda fail to anticipate at least one limitation within the claim language. Specifically, applicant argues Takeda fails to anticipate the following:

"wherein the reply packet transmitter transmits the reply packet to the bubble packet transmitting port by using N different ports (N being an integer of 2 or more)."

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Applicant's argument is based on the premise that the claim response must now consist of plural reply packets that are transmitted using multiple different ports of the transmitting NAT, and that Takeda does not teach this concept.

The examiner respectfully disagrees and finds these arguments unpersuasive. The examiner must give the claims their broadest reasonable interpretation consistent with the specification. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., plural reply packets using multiple different ports of the transmitting NAT) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Specifically, the multiple different ports could be considered the destination bubble packet transmitting port and the source reply packet port, as then the reply would be "using N different ports". No recitation of plural packet replies has been identified within the claim language. Nor has any recitation that the N ports must be transmitting NAT source ports been identified within the claim language.

Applicant's arguments are ultimately unpersuasive and, therefore, the rejections of these claims are hereby maintained.

Dependent claims 90-93, 114-116, 128-137

Applicant argues these claims conditionally based upon the arguments presented for their parent claim(s).

Applicant's arguments are ultimately unpersuasive and, therefore, the rejections of these claims are hereby maintained or as set forth below (if new claims).

Claim Rejections

13. Claims 89-93, 113-116, 126, and 128-137 are rejected under 35 U.S.C. 102(e) as being anticipated by Takeda et al (US 2004/0139228 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 89, Takeda teaches a communication system (Figure 16A-16D) comprising a first information processor (host/cam 629), a second information processor (client/browser 630), a first communication control unit for controlling the communication of the first information processor (NAT 1602), a second communication control unit for controlling the communication of the second information processor (NAT 1604), and a

server for establishing communication between the first and second information processors (STUN server 622) (Takeda: Figures 16A-16D); wherein A first information processor (Figure 16A, item 629) includes:

a reference port receiver for receiving reference port information showing a position of a reference port of the second communication control unit, the reference port being a reference for transmission of a bubble packet transmitted for leaving a transmission record in the first communication unit (Takeda: Figure 16A, 1608; [0193] server 629 receives NAT address/port pair mapping and NAT type of the client 630 via STUN server);

a bubble packet transmitter for transmitting the bubble packet to the second comm. control unit via the first comm. control unit in accordance with the reference port information (Takeda: Figure 16B, step 1610-1616 breakout packets; [0194]);

a detection packet transmitter for transmitting a port detection packet to the server in order to detect a position of a bubble packet transmitting port of the first communication control unit, which is used in transmission of the bubble packet (Takeda: Figure 16A, step 1607A; [0192]-[0194] server 629 sends packets to determine NAT address/port pair and NAT type, including port delta);

a reply packet receiver for receiving a reply packet transmitted from the second information processor via the second communication control unit to the bubble packet transmitting port (Takeda: Figure 16C, 1630-1636; [0200]-[0202] for receiving back reply);

A second information processor (Figure 16A, item 630) includes:

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a reference port detection packet transmitter for transmitting a reference port detection packet for detecting the position of the reference port (Takeda: Figure 16A, 1607B; [0192]-[0193] client 630 sends packets to determine NAT address/port pair mapping and NAT type, including port delta);

a bubble packet transmitting port information receiver for receiving bubble packet transmitting port information showing the position of the bubble packet transmitting port (Takeda: Figure 16A, 1610; [0192]-[0193] client 630 receives NAT address/port pair mapping and NAT type of the server 629 via STUN server);

a reply packet transmitter for transmitting a reply packet to the bubble packet transmitting port showing the bubble packet transmitting port information (Takeda: Figure 16C, 1630-1634; [0200]-[0202] for sending breakout reply); and A server (Figure 15a, item 622) includes:

a reference port detector which receives the reference port detection packet transmitted from the second information processor for detecting the position of the reference port in accordance with the reference port detection packet (Takeda: Figure 16A, 1607B; [0192]-[0193] STUN server receives packet from client 630 and identifies NAT type and port/address pair of client 630); and

a reference port transmitter for transmitting reference port information showing the position of the reference port detected by the reference port detector to the first information processor (Takeda: Figure 16A, 1608; [0192]-[0193] STUN server sends server 629 the NAT type and address/port pair of client 630);

a bubble packet transmitting port detector which receives the port detection packet transmitted from the first information processor for detecting the position of the bubble packet transmitting port in accordance with the port detection packet (Takeda: Figure 16A, 1607A; [0192]-[0193] STUN server receives packet from server 629 and identifies NAT type and port/address pair of server 629);

a bubble packet transmitting port transmitter for transmitting the bubble packet transmitting port information to the second information processor (Takeda: Figure 16A, 1610; [0192]-[0193] STUN server sends client 630 the NAT type and address/port pair of server 629); and

wherein the reply packet transmitter transmits the reply packet to the bubble packet transmitting port by using N different ports (N being an integer of 2 or more) (Takeda: Figure 16C; [0200]-[0202] provides for use of ports 49154 (NAT 1604) and 50014 (NAT 1604)).

Regarding claim 90, Takeda teaches wherein the detection packet transmitter transmits the port detection packet in the first information processor before or after the bubble packet transmitter transmits the bubble packet (Takeda: Figure 16A before Figure 16B; See also [0192]-[0194]).

Regarding claim 91, Takeda teaches wherein the bubble packet transmitting port detector detects the position of the bubble packet transmitting port by using the port number differential of the first communication control unit in the server (Takeda: [0198]-

[0200] provides NAT 1602's delta can be used to predict the breakout packet transmitting port).

Regarding claim 92, Takeda teaches wherein the first information processor further includes:

a port number differential detection packet transmitter for transmitting a port number differential detection packet for detecting the port number differential in the first communication control unit via the first communication control unit (Takeda: Figure 16A, 1607A; [0192] provides the server 629 sends the STUN server its NAT info, including port delta);

and wherein the server further includes:

a port number differential detector which receives the port number differential detection packet for detecting the port number differential of the first communication control unit in accordance with the port number differential detection packet (Takeda: Figure 16A, 1607A; [0192] provides the STUN server receives the server 629 NAT info packet, including port delta); and

wherein the bubble packet transmitting port detector detects the position of the bubble packet transmitting port by using the port number differential detected by the port number differential detector (Takeda: [0192]-[0195] provides the STUN server can predict the break out port).

Regarding claim 93, this claim contains limitations found within that of claim 92 and the same rationale of rejection is used, where applicable.

Regarding claim 113, this server claim contains limitations found within that of claim 89, and the same rationale of rejection is used, where applicable.

Regarding claim 114, this server claim contains limitations found within that of claim 91, and the same rationale of rejection is used, where applicable.

Regarding claim 115, this server claim contains limitations found within that of claim 92, and the same rationale of rejection is used, where applicable.

Regarding claim 116, this server claim contains limitations found within that of claim 92, and the same rationale of rejection is used, where applicable.

Regarding claim 126, this server method claim contains limitations found within that of claim 89, and the same rationale of rejection is used, where applicable.

Regarding claim 128, Takeda teaches further comprising:

a detecting port detecting step for detecting the port position of the communication control unit through which the port detection packet has passed in accordance with the port detection packet (Takeda: Figure 16A, 1607B; [0193] provides

the STUN server detects the NAT type and address/port information, including delta, of client 630); and

a detecting port information transmitting step for transmitting detecting port information showing the port position detected in the detecting port detecting step (Takeda: Figure 16A, 1608; [0193], STUN server relays the NAT info of client 630 to server 629).

Regarding claim 129, Takeda teaches wherein the N ports are newly assigned in the second communication control unit when transmitting the reply packet (Takeda: Figures 16B-16C; [0194]-[0202] provides the NAT 1604 has not prior sent a packet to port 50014 from port 49154).

Regarding claim 130, Takeda teaches wherein the bubble packet transmitter transmits the bubble packet to a port which is assigned based on the reference port and a specified number L (L being an integer) (Takeda: Figure 16B; [0194]-[0196] provides it users reference plus the delta for target ports).

Regarding claim 131, Takeda teaches wherein the number N is greater than or equal to the number L (Takeda: [0192] provides the delta is 2; [0200]-[0202] for using 2 ports, source and destination).

Regarding claim 132, this server method claim contains limitations found within that of claim 129, and the same rationale of rejection is used, where applicable.

Regarding claim 133, this server method claim contains limitations found within that of claim 130, and the same rationale of rejection is used, where applicable.

Regarding claim 134, this server method claim contains limitations found within that of claim 131, and the same rationale of rejection is used, where applicable.

Regarding claim 135, this server method claim contains limitations found within that of claim 129, and the same rationale of rejection is used, where applicable.

Regarding claim 136, this server method claim contains limitations found within that of claim 130, and the same rationale of rejection is used, where applicable.

Regarding claim 137, this server method claim contains limitations found within that of claim 131, and the same rationale of rejection is used, where applicable.

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Citation of Pertinent Prior Art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Juncker et al (US 2006/0075127 A1; US 2009/0240821 A1) discloses a peer-to-peer connection setup with NAT traversals.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY NICKERSON whose telephone number is (571)270-3631. The examiner can normally be reached on M-Th, 9:00am - 7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. N./ Examiner, Art Unit 2442 /KEVIN BATES/ Primary Examiner, Art Unit 2456